

Title (en)

Laser reprofiling system employing a bleachable mask.

Title (de)

Lasersystem zum Profilieren mittels einer bleichbaren Maske.

Title (fr)

Système de profilage à laser, avec un masque décolorable.

Publication

EP 0536450 A1 19930414 (EN)

Application

EP 91309166 A 19911007

Priority

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Abstract (en)

A laser system for reprofiling a surface 28, such as the corneal surface of an eye, comprising a laser 10 and a photoreactive mask 36 disposed between the laser means and the surface for providing a predefined profile of resistance to laser radiation, such that, upon irradiation of the mask, a portion of the laser radiation is selectively absorbed and another portion is transmitted to the surface, in accordance with the mask profile, to selectively erode the surface. The mask can be connected to the support structure 30 and disposed in optical alignment with the laser means and the surface. The mask can be directly integrated with support structure attached to the surface or spatially separated from the surface and imaged onto the surface. In one preferred embodiment, the mask includes a transparent matrix 70 and light-absorbing dispersoids 74 selectively distributed within the matrix, such that the dispersed elements are progressively bleached by exposure to the laser radiation.

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IPC 8 full level

A61F 9/01 (2006.01); **A61B 17/30** (2006.01); **A61F 9/008** (2006.01)

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Citation (search report)

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